



Sheet 1 of 2

FORM 1449*

INFORMATION DISCLOSURE STATEMENT
IN AN APPLICATION

(Use several sheets if necessary)

Docket Number
D0009NP;30436.53USU1Application Number
09/877,987Applicant
Robert M. Townsend et al.Filing Date
June 8, 2001

Group Art Unit

1645 1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
NG	5,354,678 (Exhibit 81)	October 11, 1994	Lebkowski et al.			December 21, 1992
	5,824,655 (Exhibit 82)	October 20, 1998	Border			February 15, 1995
	6,113,898 (Exhibit 83)	September 5, 2000	Anderson et al.			June 7, 1995
	6,090,914 (Exhibit 84)	July 18, 2000	Linsley et al.			April 15, 1994

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	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO 98/56417 (Exhibit 85)	December 17, 1998	PCT				X
	WO 95/34320 (Exhibit 86)	December 21, 1995	PCT				X

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PL	5,434,131 (Exhibit 154)	7/18/95	Linsley et al.			5/26/93
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						YES NO
	WO 95/33770 (Exhibit 124)	12/14/95	PCT			X
	WO 02/02638 A2 (Exhibit 155)	1/10/02	PCT			X
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EXAMINER	 PTHUR/PCAM/2 11/17/03	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.		

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number	Application Number
	D0009NP;30436.53USU1	09/877,987
	Applicant	
	Robert M. Townsend et al.	
	Filing Date	Group Art Unit
	June 8, 2001	1645/649

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
M		Durham, Megan M., et al., "Cutting Edge: Administration of Anti-CD40 Ligand and Donor Bone Marrow Leads to Hemopoietic Chimerism and Donor-Specific Tolerance Without Cytoablative Conditioning ¹ ," <i>Cutting Edge</i> , 2000, 165:1-4. (Exhibit 173)
		Williams, Matthew A., et al., "Genetic Characterization of Strain Differences in the Ability to Mediate CD40/CD28-Independent Rejection of Skin Allografts ¹ ," <i>The Journal of Immunology</i> , 2000, 165: 6549-6857. (Exhibit 174)
		Bingaman, Adam W., et al., "The role of CD40L in T cell-dependent nitric oxide production by murine macrophages," <i>Transplant Immunology</i> , 2000, 8:195-202. (Exhibit 175)
		Adams, Andrew B., et al., "Costimulation Blockade, Busulfan, and Bone Marrow Promote Titratable Macrochimerism, Induce Transplantation Tolerance, and Correct Genetic Hemoglobinopathies with Minimal Myelosuppression ¹ ," <i>The Journal of Immunology</i> , 2001, 167:1103-1111. (Exhibit 176)
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		Ritchie, SC., et al., "Regulation of Immunostimulatory function and B7 molecule expression on murine dendritic cells," <i>Journal of Cellular Biochemistry</i> , 1995, 21A:C1-215 (Exhibit 183)
		Alexander, DZ., et al., "Analysis of the mechanisms of CTLA4-Ig plus bone marrow induced transplantation tolerance," <i>Journal of Cellular Biochemistry</i> , 1995, 21A:C1-301 (Exhibit 184)
		Alexander, DZ., et al., "CTLA4-Ig induced transplantation tolerance: analysis of donor cell chimerism," <i>Surgical Forum</i> , 1994, 45:402-403 (Exhibit 185)
		Pearson, TC., et al., "CTLA4-Ig plus bone marrow induces transplantation tolerance in the murine model," <i>Journal of Cellular Biochemistry</i> , 1995, 21A:C1-327 (Exhibit 186)
		Lakkis, FG., et al., "CTLA4Ig induces long-term cardiac allograft survival in the absence of interleukin-4," <i>Journal of the American Society of Nephrology</i> , 1996, 7:A3204 (Exhibit 187)
		L104EA29Y (Figure 6 of the subject application) was provided to researchers at Emory University, subject to use restrictions and confidentiality by agreement, more than one year before the priority date of the subject application, i.e. May 26, 2000, for use in animal studies in the U.S.
M		L104EA29Y (Figure 6 of the subject application) has been the subject of human clinical trials under the direction and control of Bristol-Myers Squibb Company. L104EA29Y was given to investigators who were involved in the clinical trials subject to use restrictions and confidentiality by agreement. L104EA29Y was administered intravenously to human patients in clinical trials.

EXAMINER	PHILIP C. MAGEE 11/17/03	DATE CONSIDERED
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*Substitute Disclosure Statement Form (PTO-1449) Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number	Application Number
	D0009NP;30436.53USU1	09/877,987
	Applicant	
	Robert M. Townsend et al.	
	Filing Date	Group Art Unit
	June 8, 2001	1645/6 M

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
Mu		L104EA29Y was first administered intravenously to a human patient as early as November 30, 1998 in Scotland.
		L104EA29Y was first administered intravenously to a human patient as early as April 24, 1999 in the United States.
		A letter dated July 9, 1998 including a report, submitted to the U.S. Food and Drug Administration in connection with an Investigational New Drug (IND) application, is enclosed as Exhibit 188.
		The letter and report are confidential and were provided confidentially, pursuant to 21 C.F.R. §20.111 or §21 C.F.R. §312.130, to the Center for Biologics Evaluation and Research at the U.S. Food and Drug Administration in connection with the Investigational New Drug Application.
		The enclosed letter and report are redacted versions of what were sent to the U.S. Food and Drug Administration.
		The report contained the sequence for BMS-224818 (Figure 3 at page 13 of Exhibit 171), which differs from CTLA4Ig at two amino acid residues, Leu104-Glu and Ala29-Tyr (Exhibit 171 at page 2).
		An Investigator Brochure dated January 26, 1999 is enclosed as Exhibit 189.
		The Investigator Brochure is confidential and was provided to investigators who were involved in the clinical trials and subject to confidentiality by agreement, more than one year before the priority date of the subject application, i.e. May 26, 2000.
		The enclosed Investigator Brochure is a redacted version of what was sent to investigators.
M		The Investigator Brochure contained a text description and a schematic representation of LEA29Y (Figure 1 at page 6 of Exhibit 172), but not the sequence of L104EA29Y (Figure 6, of the subject application).

EXAMINER	DATE CONSIDERED
[Signature] 11/17/03 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

FORM 1449*

Docket Number

Application Number

D0009NP;30436.53USU1

09/877,987

Applicant

Robert M. Townsend et al.

Filing Date

June 8, 2001

Group Art Unit

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**INFORMATION DISCLOSURE STATEMENT
IN AN APPLICATION**

(Use several sheets if necessary)



U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
M	6,444,792 (Exhibit 197)	September 3, 2002	Gray et al.			
	5,968,510 (Exhibit 206)	October 10, 1999	Linsley et al.			
	5,844,095 (Exhibit 207)	December 1, 1998	Linsley et al.			
	5,851,795 (Exhibit 218)	December 22, 1998	Linsley et al.			
	5,958,403 (Exhibit 219)	September 28, 1999	Strom et al.			
	5,770,197 (Exhibit 223)	June 23, 1998	Linsley et al.			
	6,132,992 (Exhibit 224)	October 17, 2000	Ledbetter et al.			
	5,773,253 (Exhibit 225)	June 30, 1998	Linsley et al.			
	5,885,796 (Exhibit 226)	March 23, 1999	Linsley et al.			
	5,977,318 (Exhibit 227)	November 2, 1999	Chou			
	5,885,579 (Exhibit 228)	March 23, 1999	Linsley et al.			
	5,993,800 (Exhibit 229)	November 30, 1999	Linsley et al.			
	5,916,560 (Exhibit 230)	June 29, 1999	Larsen et al.			
	5,637,481 (Exhibit 232)	June 10, 1997	Ledbetter et al.			

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
M	WO 01/90122 A2 (Exhibit 190)	November 29, 2001	PCT				
	WO 01/54732 A1 (Exhibit 191)	August 2, 2001	PCT				
	WO 00/23115 (Exhibit 192)	April 27, 2000	PCT				

EXAMINER

D. H. Townsend 1/12/03

DATE CONSIDERED

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FORM 1449*

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D0009NP;30436.53USU1

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Applicant

Robert M. Townsend et al.

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Group Art Unit

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**INFORMATION DISCLOSURE STATEMENT
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(Use several sheets if necessary)



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	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
M	WO 97/28267 (Exhibit 193)	August 7, 1997	PCT				
	WO 96/14865 (Exhibit 194)	May 23, 1996	PCT				
	WO 98/31820 (Exhibit 195)	July 23, 1998	PCT				
	WO 94/28912 (Exhibit 196)	December 22, 1994	PCT				
	WO 93/19767 (Exhibit 198)	October 14, 1993	PCT				
	WO 94/29436 (Exhibit 199)	December 22, 1994	PCT				
	WO 95/33823 (Exhibit 200)	December 14, 1995	PCT				
	WO 93/00431 (Exhibit 201)	January 7, 1993	PCT				
	EP 0 613 944 A2 (Exhibit 202)	September 7, 1994	EP				
	EP 0 682 039 A1 (Exhibit 203)	November 15, 1995	EP				
	WO 01/92337 (Exhibit 208)	December 6, 2001	PCT				
	WO 98/33,513 (Exhibit 217)	August 6, 1998.	PCT				

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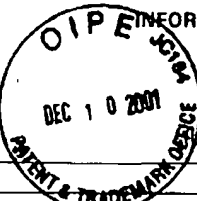
EXAMINER

Penny G. Moore 11/17/03

DATE CONSIDERED

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	Docket Number D0009NP/30436.53USU1	Application Number 09/877,987
Applicant Robert M. Townsend et al.		
Filing Date June 8, 2001	Group Art Unit 1645 <i>1645</i>	

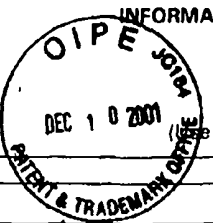
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	WO95/33770 (Exhibit 1)	December 14, 1995	Canada	2,600	01	
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		Ciubotariu, Rodica et al., "Specific Suppression of Human CD4 ⁺ Th Cell Responses to Pig MHC Antigens by CD28 ⁺ CD28 ⁻ Regulatory T Cells," <i>The American Association of Immunologists</i> , 1998, 161:5193-5202. (Exhibit 7)				
		Daikh, David et al., "The CD28-B7 Costimulatory Pathway and Its Role in Autoimmune Disease," <i>Journal of Leukocyte Biology</i> , August 1997, 62:156-62. (Exhibit 8)				
		Damle, Nitin K. et al., "Costimulation of T Lymphocytes with Integrin Ligands Intercellular Adhesion Molecule-1 or Vascular Cell Adhesion Molecule-1 Induces Functional Expression of CTLA-4, a Second Receptor for B7," <i>Journal of Immunology</i> , 1994, 152:2686-97. (Exhibit 9)				
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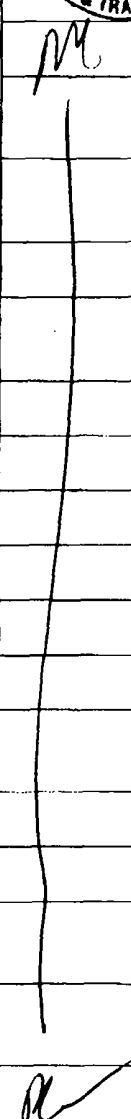
EXAMINER <i>Plummer G. Messer</i>	DATE CONSIDERED <i>11/7/02</i>
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INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)		Applicant Robert M. Townsend et al.	
		Filing Date June 8, 2001	Group Art Unit 1645 <i>617</i>

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		Grabstein, Kenneth H. et al., "The Regulation of T Cell-Dependent Antibody Formation in Vitro by CD40 Ligand and IL-2," <i>The Journal of Immunology</i> , April 15, 1993, 150(8):3141-7. (Exhibit 15)
		Graf, Daniel et al., "Cloning of TRAP, a ligand for CD40 on Human T Cells," <i>Eur. J. Immunol.</i> , 1992, 22:3191-4. (Exhibit 16)
		Green, Jonathan M. and Craig B. Thompson, "Modulation of T Cell Proliferative Responses by Accessory Cell Interactions," <i>Immunologic Research</i> , 1994, 13:3234-43. (Exhibit 17)
		Greenfield, Edward A. et al., "CD28/B7 Constimulation: A Review," <i>Critical Reviews in Immunology</i> , 1998, 18:389-418. (Exhibit 18)
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		Hardy, R.R., "Chapter 13: Purification and Characterization of Monoclonal Antibodies," <i>Handbook of Experimental Immunology</i> , 1986, 13.1-13. (Exhibit 20)
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		Hutloff, Andreas et al., "ICOS is an Inducible T-Cell Co-Stimulator Structurally and Functionally Related CD28," <i>Nature</i> , January 1999, 397:263-6. (Exhibit 25)
		Isobe, Mitsuaki et al., "Acceptance of Primary Skin Graft After Treatment with Anti-Intracellular Adhesion Molecule-1 and Anti-Leukocyte Function-Associated Antigen-1 Monoclonal Antibodies in Mice," <i>Transplantation</i> , August 15, 1996, 62(3):411-3. (Exhibit 26)
		Isobe, Mitsuaki et al., "Regulation by Differential Development of Th1 and Th2 Cells in Peripheral Tolerance to Cardiac Allograft Induced by Blocking ICAM-1/LFA-1 Adhesion," <i>Circulation</i> , 1997, 96:2247-53. (Exhibit 27)
		Isobe, Mitsuaki et al., "Specific Acceptance of Cardiac Allograft After Treatment with Antibodies to ICAM-1 and LFA-1," <i>Science</i> , February 1992, 255:1125-7. (Exhibit 28)
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EXAMINER <i>PHILLIP AMOZ 11/7/03</i>	DATE CONSIDERED
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	Robert M. Townsend et al.	
Filing Date	Group Art Unit	
June 8, 2001	1645 1644	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
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		Keizer, Gerrit D. et al., "Biochemical and Functional Characteristics of the Human Leukocyte Membrane Antigen Family LFA-1, Mo-1 and p150,95*," <i>Eur. J. Immunol.</i> , 1985, 15:1142-7. (Exhibit 32)
		Kim, Jong J. et al., "Intracellular Adhesion Molecule-1 Modulates β -Chemokines and Directly Costimulates T Cells In Vivo," <i>The Journal of Clinical Investigation</i> , March 1999, 103(6):869-77. (Exhibit 33)
		Kirk, Allan D. et al., "CTLA4-Ig and Anti-CD40 Ligand Prevent Renal Allograft Rejection in Primates," <i>Proc. Nat'l. Acad. Sci. USA</i> , August 1997, 94:8789-94. (Exhibit 34)
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		Larsen, Christian P. et al., "CD40-gp39 Interactions Play a Critical Role During Allograft Rejection," <i>Transplantation</i> , January 15, 1996, 61(1):4-9. (Exhibit 36)
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	Applicant Robert M. Lowery et al.	DEC 12 2001 TECH CENTER 1600/2000	
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